



CROSSTALK

News Bulletin of the TRW Amateur Radio Club

Member, American Radio Relay League

JANUARY 1987

** FD'71 ** FD'73 ** FD'75 ** FD'76 ** WAS ** WAC **

Garrett/W6TRW Repeater: 145.32/-600(2A-PL) -- UHF: 442.000in/447.000out

CALENDAR FOR JANUARY AND FEBRUARY

Wednesday	Each Wednesday, noon	Emergency Communications Team Check-in. 145.32 via repeater and simplex.
Friday	Each Friday, 7-8am	Club Breakfast, S Cafeteria, VERY informal, good breakfast for less than \$2.00!!
Tuesday	Jan 27, noon	Club Meeting. Meeting room moves to R2/1055. Meet your new Club Officers!! Speaker will be Julian Macassey, N6ARE, a regular columnist in <u>Worldradio</u> magazine. He will speak on his opinion of where Amateur Radio is headed.
Saturday	Jan 31, 8-11am	Swap Meet. Corner of Compton/Marine and Aviation, in Manhattan Beach. Seller's lot is directly behind the Standard Station. Sellers please DO NOT arrive before 0700!
Tuesday	Feb 10, after work	Executive Board Meeting. All members are welcome! At Shakey's Manhattan Beach, 2000 N. Sepulveda Blvd., just south of Marine Ave.
Tuesday	Feb 24, noon	Club Meeting, R2/1055. Tentatively scheduled a Search and Rescue presentation.
Saturday	Feb 28, 8-11am	Swap Meet.

RENEW - RENEW - RENEW

Bill Dews, K6AWO

This is your LAST CHANCE for 5 FREE lunches, 12 Crosstalks, one week-end in June at the ARRL Field Day (all the food is free), VHF/UHF Contest (in June you will be on a mountain), Computer radio, a Club station with a 40 Meter Quad Antenna and a KT34XA Tri-Band beam antenna on a 50 foot tower, Club breakfast every Friday morning (you buy but its less than \$2.00), the loan of amateur radio equipment owned by the Club, not to mention 12 great noon time Club meetings with speakers actively involved in Amateur Radio.

Please fill out the attached 1987 Membership Application, write a check to the TRW/ARC and mail it per the information on the form. Do It Now!!!

(ed. As of the January EBM only 47 of 225 members have renewed!!)

RACES

Bill Dews, K6AWO

On the 13th of January, the Radio Amateur Civil Emergency Services (RACES) organization in the Redondo Beach, Hermosa Beach, Manhattan Beach area will have been using the 145.32 MHz TRW repeater frequency for check-ins for a period of one year. The Club members and RACES group have gotten along fine with this arrangement and we hope it will continue. If you live in the South Bay area and have an interest in emergency communications and would like to join RACES please call me at work, (53)51656 or at home, 376-1433. Only a little of your precious time will be taken up with this endeavor and you will be of more help during an emergency as you will have the training necessary to do the job right.

Didn't Get What You Wanted From Santa?

Bill Dews, K6AWO

So Santa didn't bring you that rig you were looking for at Christmas? Maybe the Club can help you over the blues with the loan of one of the Club's HT's or pieces of test equipment to get that old rig back in top notch order again. Besides the great array of antennas at the club shack and transceivers to go along with them, the Club can loan out to the members 2 meter, 220 MHz and 440 MHz handheld radios, a Bird Wattmeter, a Fluke Multimeter, a DSI C-1200 counter, a Heath FM Deviation meter, an MJF noise bridge, or if you are putting up that tower a crimp tool for ferrules on the guy wires. If you would like the loan of any of the above equipment, contact me, Bill Dews, K6AWO, at (53)61656 or drop me a note at mail station M2/2375. I will set you up with what you need so that you can enjoy this hobby at a minimum expense. (ed. For those of you putting up a tower, we can rent you the Club jin pole.

Wanted -- For Sale -- Freebies

Wanted - Schematic or service information on the IF amplifiers for an RME Model 4350 Communications Receiver. Contact Jim Wike at (53)56214 (work) or (213)541-8988 (home).

For Sale - Kenwood AT-230 Antenna Tuner, \$87.50. Contact Paul Herbert, K6GCR at (53)63404 (work).

For Sale - Icom 2A Two Meter Handheld in good condition with Comm-Spec PL for the W6TRW repeater. \$130. Contact Bill Schreck, KE6LB, (53)63316 (work) or (213)541-9350 (home).



TRW SEA • One Space Park • Redondo Beach, CA 90278 • Attn: Amateur Radio Club

The meeting was called to order at 1730 by President Chris Wachs, WA2KDL. Thirteen voting members, one past member, and one visitor were present. A list of the newly elected members was read. They are: President Chris Wachs, WA2KDL; Vice President Steve O'Neal, N6CRR; Secretary Jim Cox, K7JAJ and Treasurer Dave Stockwell, WA6ATK. A motion was made and seconded, to approve the list of appointed officers as follows: Activities Manager, Jim Wike, W6GPE; Trustee Phil Bergeron, N6PB; LAACARC Delegate Bill Daley, K6B0; Membership Chairman Bill Dews, K6AW0; SEA Council Representative Paul Herbert, K6GCR; QSL Card Manager Mel Erb, K6GWC; Swap Meet Manager Frank Cartier, WA6RAY; Technical Chairman Jim Cox, K7JAJ; Librarian George Lee, W6IOW; Crosstalk Editor John Keller, N6JLS; Training Chairman Paul Wisiolek, K1TKL; Emergency Coordinator Rich Sauer, N6CIZ; Field Day Co-Chairmen Carl Kennedy, WB6TDE, and Bill Schrecengost, KE6LB. The motion was carried unanimously. The President then gave his report, followed by a request for a volunteer to pick up some donated QST magazines in the Lakewood area. The custodial agreement for the W6NWP repeater was circulated for the appropriate signatures and submitted to the Secretary for transmittal to Charlie Clarke, W6NWP. The SEA membership application for 1987 was circulated for inclusion of information regarding elected club officers.

The Vice President reported that the speaker at the next General meeting would be Julian Macassey, N6ARE.

Paul Lukas, N6DMV gave a brief report of the last minutes, then turned his duties over to the new Secretary. The members of the board who were present extended their thanks for a job well done.

The Treasurers report was given for income versus expenses through the end of December, followed by a discussion of the planned budget for 1987. It was moved and seconded to include a line item in the 1987 budget "for the support of Amateur Radio in the local community." Votes were cast and the motion carried. It was moved and seconded to increase the Field Day budget for 1987 to \$400, the difference between the existing \$200 and the new amount to be taken from the equipment budget. The motion was passed unanimously. It was then moved, seconded and unanimously passed to accept the 1987 budget as amended. The Activity Manager's report was given. The Trustee's report was given. It was reported that new 1987 Callbooks have been ordered. It was moved, seconded and unanimously passed that the tower sections that had been left on the roof of Building 65 be sold at the next Swap Meet. The Membership Chairman reported that there are presently 45 Club members (dues paid for 1987).

Reports were then given by the Swapmeet Chairman, Technical Chairman, Crosstalk Editor, and the Emergency Coordinator. It was moved, seconded and unanimously passed that the Emergency Coordinator be instructed to purchase the necessary batteries and battery chargers to keep the emergency VHF radios in a state of readiness.

The Field Day report was then given, followed by a discussion of activities that should necessarily be accomplished prior to the next Field Day. It was observed that the next General Meeting would be held in Building R2, Room 1055, and the meeting was adjourned at 1917.

New Members - - Old Members

Welcome to the Club:

Rene, W6QX, and Pam, KB6QQD, Yruretagoyena. Rene is an Extra Class license holder while Pam has her Novice ticket. Rene is interested in HF, VHF, Packet and Computers and wants to help out at the Swap Meet and is an ARRL member too!

Hope to see you at the January Club meeting on Tuesday January 27 at noon in R2/1055.

FCC Classifications of Emissions

First character: Describes the modulation of the main carrier

- N Unmodulated
- A Amplitude Modulation (AM) double sideband
- H Single sideband, full carrier
- R Single sideband, reduced carrier
- J Single sideband, suppressed carrier
- B Independent sidebands
- C Vestigial sidebands
- F Frequency Modulation (FM)
- G Phase Modulation (PM)
- P Unmodulated sequence of pulses
- K AM sequence of pulses
- I Width/Duration modulated pulses
- M Position/Phase modulated pulses
- Q Angle modulated pulses

Second character: Describes the modulation signal

- 0 No signal
- 1 Single channel with quantized/digitized information (no subcarrier)
- 2 Single channel with quantized/digitized information (with subcarrier)
- 3 Single analog channel
- 7 Two or more channels with digital information
- 8 Two or more analog channels
- 9 One or more quantized channels combined with one or more analog channels
- X Other signals

Third character: Describes the transmitted information

- N No information
- A Telegraphy for aural reception
- B Telegraphy for automatic reception
- C Facsimile
- D Data (telemetry or command)
- E Telephony
- F Television
- W Combination of the above
- X Other information

Tidbits from the Jolly Little S...

Have you renewed your membership in the TRW/ARC yet. So far only 47 members have done so. Where are the other 180 of you?? This the last month that the membership form will appear and this month or next will be your last Crosstalk if you don't renew now! So stop reading now, go to the next to last page, rip it off, fill it out (ANSWER ALL THE QUESTIONS!!), make out a check and mail it. I can wait until you finish. Go Do It!!

And A Happy New Year To You!! And if you don't think that it is a happy new year, slide over to Rich Sauer's article on Emergency Communications to find an unexpected bit of news that will delight all of you ECT members with handhelds. Needless to say we are proceeding cautiously and with great hope that this signals an improved relationship with Security.

If you didn't stop up above and renew your membership, do it now. This will still be waiting for you when you return.

If Santa Claus didn't bring you a new rig, see if what the Club has to loan out to members might fill in. Check out Bill Dews' article on what is available and how to get your hands on it. But renew your membership before you read it or you may not be able to borrow the equipment.

Welcome to all of the new Club Officers and THANK YOU to the outgoing Officers and Staff. We couldn't have done what we did last year(s) without you!! Please don't make yourself scarce - there is still plenty to do and good people like you don't just grow on trees.

From The Bench

Q. We've been using mobile radios for years but automobile technology is changing all the time. Have any guidelines come out about interference between new automotive electronics and mobile radio?

A. Yes, indeed. General Motors Electromagnetic Compatibility Department has recently published a free set of installation guidelines from the car maker's point of view. Many of the hints given would not be readily apparent to even the most experienced installer.

For instance, there is a preferred side of the trunk for installing remote mount radios. In not all, but certainly a majority of cases, an electronic component called the engine controller is located on the passenger side of the trunk. Mobile radios should be installed on the driver's side to avoid interference with engine operation.

Other electronic modules are often located behind the glove compartment or underneath it. These areas need to be avoided when routing cables carrying RF. This can become a challenge particularly when using disguised antennas that resemble broadcast receiver antennas. It is almost impossible to route cable to that side of the car without passing near the car's modules. "In many cases, an exposed antenna presents less risk than the degraded communications or automobile performance if the disguised unit is in the usual location," says William Sperber of GM.

Also, antenna cabling should never be routed with vehicle wiring anywhere.

Power cabling is best run down the left side under the door sills to keep it away from sensitive components. Cable should be #10AWG or heavier, and stranded. Another point installers often miss is the grounding should be done only at the battery, never on the body. Many apparent grounds in the passenger compartment are not really grounded and several current loops may exist within the car body.

"It's surprising how many dealers have told us that some of the strangest problems were solved by grounding at the battery," Sperber said. And to be on the safe side he also suggests that a fuse be put in the ground line near the battery. Apparently there have been instances of overvoltage conditions on engine start that surge the radio from the ground side. It doesn't happen often but it's possible and a fuse in the ground connection prevents radio damage.

Power contactors are another recommendation from the GM Proving Ground. When ignition control of the radio is desired, a contactor (merely a relay closure) further separates the radio power circuitry from the vehicle's.

If you would like a copy of the Radio Telephone/Mobile Radio Installation Guidelines, write to the Electromagnetic Compatibility Department, EMC Building, 40-MR, General Motors Proving Ground, Milford, MI 48042-2001.

Thanks to the Lockheed Bulletin who got it from The Rah Rah Rag, Rochester, NY.

General Meeting 16 December 1986

Paul Lukas, N6DMW

After opening the meeting, President Chris Wachs handed over a package containing the ballots electing the new Club Officers. The 37 ballots received unanimously elected the new officers. President - Chris Wachs, WA2KDL; Vice President - Steve O'Neal, N6CRR; Secretary - Jim Cox, K7JAJ; Treasurer - Dave Stockwell, WA6ATK. Congratulations! On a not so happy note, Chris reported that due to work on the roof of Building 65 where our shack is located the 40 and 80 Meter antennas were disconnected. A couple of weekends worth of work will be necessary to repair what was done to the antennas without our knowledge. If operating from the shack DO NOT SWITCH TO THE 40 AND 80 METER ANTENNAS. The beam is still ok but the guys on the tower need work. The minutes of the

...more meeting minutes.

Last general meeting were approved as printed in the Crosstalk. Bill Schrecengost, KE6LB, reported that the 440 MHz W6TRW repeater has been located at his QTH. This gives the repeater better coverage due to its slightly higher elevation on Palos Verdes Peninsula. It was reported that Jim Cox could easily access the repeater from his QTH in Orange County with an HT on low power!! The machine is guarded against intrusion by a good size German Shepard (dog) 24 hours a day! Walt Pearson stated that he again received a request by TORA to allow the use of the W6TRW 440 MHz repeater as a backup for Rose Parade communications. There was a general discussion concerning problems with the monthly Swap Meet. The shack antenna, repeater and Swap Meet issues were to be addressed at the next Executive Board meeting. The following items were raffled off: 3 pen/pencil sets, 1 power/filter box, 1 outlet box, 2 flashlights, 2 antenna design slide rules. 14 persons attended the meeting which was adjourned at 1258 local time.

EMERGENCY COMMUNICATIONS TEAM NOTES

Rich Sauer, N6CIZ

Amateur Radio emergency communications at TRW may get a big shot in the arm soon. TRW Security is preparing a disaster response plan outlining how Security would handle the aftermath of a major earthquake. They called me to ask if the Club would get involved in handling message traffic for them and asked how else we might be able to help. After explaining what we could do and our communications capabilities, it looks like Amateur Radio will play a major role in the overall plan. Enthusiastic support from "The Powers That Be" has been a goal of the Emergency Communications Team and could open up several interesting possibilities. I should have more information next month after I've had a chance to review a draft copy of the plan.

In the mean time, I've been trying to think of ways to improve our emergency communication capability and have a little fun at the same time. One idea I had was building a packet radio digipeater with emergency power capability. K7JAJ and I kicked around the idea of putting it on Building E2 where the Club 2 meter repeater is located. While not the highest location around, it does cover the South Bay and emergency power is provided by a back-up generator and a storage battery on the W6TRW repeater. We could put the thing on a little used channel (like 145.07 MHz) and use it as a place to monitor and call other club members. Or take it a step further and add a computer configured as a Club packet bulletin board. Well, it's just an idea right now but if enough members show an interest we could give it a try.

Even if this project doesn't turn out, I'd like to see W6TRW get involved in some high-tech projects. How about a fancy controller for the repeater? An automated Oscar station? A paging scheme for the ECT members using the repeater? Any ideas? The TRW Club has some very capable engineers, technicians and innovators. A high-tech company like TRW should have a club that reflects its ability. Month after month I see the same people showing up for meetings and only a handful doing most of the work. We need you! Let us know what you think and what activities you'd like to see the Club get involved in. Finally, speaking of getting involved, let me remind you of the weekly check-ins Wednesday at noon. It only takes a few minutes of your lunch hour to check in with your call and location. And where are you guys who have the Club's emergency HT's? Exercise them a bit and let me know that you're still interested.

The check-ins for December 10th were: K6AWO (Bill, Net Control Station), K7JAJ, W6EKK, K6BKL and N6MZW. For December 17th: K6AWO (Net Control), W6EKK, K7JAJ, W6IPM, N6MZW, N6MEL (from his class room at school!) and WA2KDL. On January 7th: N6CIZ (Net Control), W6IPM and N6JLS checked in. My thanks to all of you.

The first issue was the approval of the Appointed Officers. Steve O'Neal is trying to get Julian Macassey, N6ARE, to be speaker at the next Club meeting, (topic is undisclosed at present). The minutes of the November EBM were accepted as printed in the Crosstalk. We have a new QTH for Club meetings: Building R2 Room 1055. We will attempt to get the R4 room back but until further notice we will be in R2/1055. The possibility of a second restroom, or one that can be used by handicapped persons, was suggested for the Swap Meet. The issue is under evaluation, resolution is forthcoming. Voting ballots were handed out for the election of the new officers. The ballots must be in by the 12th of December, to Walt Pearson. Our new station Trustee is Phil Bergeron, N6PB, holder of an Extra Class license. Welcome Aboard! It was reported that the November Swap Meet was a success. Bill Dews said that the Club now has 225 members. John Keller handed out the new 1987 Club calendars for approval of dates. The calendar was unanimously accepted. Chris Wachs gave out a sheet depicting the rules of the coming January VHF Sweepstakes (page 79 of the December QST). The TRW-Garrett repeater agreement was signed by Chris Wachs and it was handed over to Steve O'Neal, our new VP aspirant. Attendance at the board meeting was 9. The meeting was adjourned at 1900 local time.

The Peter Principle: In a hierarchy every employee tends to rise to their level of incompetence.

Corollaries:

In time, every post tends to be occupied by an employee who is incompetent to carry out its duties. Work is accomplished by those employees who have not yet reached their level of incompetence.

1987 Tournament of Roses

Steve Ng, N6IQA

This year, the Tournament of Roses Radio Amateurs (T.O.R.R.A.) provided communications for the Tournament of Roses in Pasadena. The operation begins on the afternoon of New Years Eve and lasts for two and one half days following the end of the parade. The radio operators involved supplied communications for the Tournament of Roses officials. The duties included escorting float convoys from construction sites in Pasadena, as well as sites in Burbank, La Canada, Temple City and Azusa. They also provide communications along the parade route with information for officials on the status of the parade, disabled floats, medical emergencies and public safety.

An operation like this takes a lot of work and man power. Many of the volunteers operated stand up hand held radios along the parade route. Some assisted tournament and float construction officials by following them around for many sleepless hours. Some rode in vans transporting tournament officials throughout the parade area and picking up participants who dropped out of the parade. Some provided support for the Amateur Radio operators themselves with transportation from a parking lot to the parade area, and motorhomes for some of the operators to get in out of the cold. Some provided communications during the days following the parade where the floats were on display. Some operated portable Amateur fast scan television cameras providing "thousand word pictures" for the tournament and public safety officials to make appropriate decisions so the parade may be a pleasant experience for all attending. This year's theme, "A World of Wonders," aptly describes the success of the organizational and operational effort put in by the many volunteers (including the 274 Amateur Radio operators) who participate in this international celebration every year.

CB is not Totally Dead and Useless

Bill Montgomery, N6MEL

While on a recent outing to the Mojave Desert of California, I happened to have the opportunity to help find a lost child.

Sure, I had my 2 Meter HT and mag mount antenna in the truck, but these were worthless for any contact from my location at the time. I could hear a QSO on the Breckenridge repeater, but I couldn't "hit it." Having jury rigged an old CB in the newly acquired 20 foot trailer and a mag mount antenna on a steel tool box atop the trailer, I was able to get a contact on the CB to the local town of California City. So I knew the rig still worked.

The second day out, my daughter wanted to take off on her dirt bike alone so I had her take our 40 Channel Realistic HT CB in a back pack on the bike - just in case. Well it wasn't long before she called in to the trailer to announce that an 8 year old girl was lost on a blue 3 wheeler. Getting directions over the air via CB, I met my daughter at the camp where the parents of the lost child had parked. "Yes indeed," they replied, they would like professional assistance from the Sheriff or local police in locating their daughter.

Using the CB HT I was able to contact a private citizen in California City some miles away who relayed the situation via land line to the police station.

Well, the happy ending. The child had been picked up and taken to the police station and all her parents had to do was arrive to pick her up.

So what do you say? Had I relied totally on ham radio, I would not have been any help in reuniting the child with her family so quickly.

(ed. Maybe if you had a little more power than the HT on 2 meters, you would have gotten the same results Bill. But no use giving up on CB just yet! Job Well Done!!!)

Are You Active?

Are you an Active Member,
The kind that would be missed?
Or are you just contented
To be on the list?

Do you attend the meetings,
And mingle with the flock?
Or do you stay at home
To criticize and mock?

Do you take an active part
To help the work along?
Or are you just satisfied
To only just belong?

Do you work with your committees
And jump right in and mix?
Or leave the work to just a few
And talk about the cliques?

Think this over, member,
You know right from wrong,
Are you an Active Member,
Or do you just belong?

Thanks to Worldradio who got it from the SCRA newsletter.

Clarke's Law of Revolutionary Ideas:

Every revolutionary idea - in Science, Politics, Art or Whatever - evokes three stages of reaction. They may be summed up by the three phrases:

"It is impossible - don't waste my time."

"It is possible, but it is not worth doing."

"I said it was a good idea all along."